

Date: Tuesday, 16/09/2008 2:38:37 PM  
 User: Linda Lacelle

## Process Sheet

SPLIT-2

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 212 DETAIL PARTS
Job Number	: 42032 <i>12</i>	Part Number	: D2127251935
Estimate Number	: 13228	Drawing Number	: D212-725-1 REV E
P.O. Number	:	Project Number	: N/A
This Issue	: 16/09/2008 S.O. No. :	Drawing Revision	: C
Prsht Rev.	: NC	Material	: N/A
First Issue	: 16/09/2008 Type : PURCHASED PARTS	Due Date	: 26/09/2008
Previous Run	: 40129	Qty:	<i>4</i> Um: Each
Written By	: <i>[Signature]</i>		
Checked & Approved By	: <i>[Signature]</i>		
Comment	: Est Rev:A 08-09-16 New Issue LL		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	PG	PURCHASING
-----	----	------------



Comment: PURCHASING

Issue P/O: *7167* to Cimtube ltee  
 Make per drwg D212-725-1 Rev. E

*C208109/14* (S)

ship to supplier:

1 x AN818-8J nut B *m107959 x5*  
 1 x MS20819-8J sleeve B *m107959 x5*

2.0	AN8188J	Nut
-----	---------	-----



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)  
 Nut *m107959 x5 C208109/15*

3.0	MS208198J	Sleeve
-----	-----------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)  
 Sleeve *m107959 x5 C208109/15*

4.0	D2127251935	tube
-----	-------------	------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 212 DETAIL PARTS

Job Number: 42032

Part Number: D2127251935

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

RECEIVE AND INSPECT FOR  
TRANSIT DAMAGE  
ENSURE C OF C ATTACHED

*Ref 08/11/17 (4)*

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT LEVEL 5

*Ref 08.11.14 (4)*

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Identify with P/N and B/N using a fine point marker

Location: \_\_\_\_\_

*Ref 08.11.14 (4) KEPT IN CALGARY*

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

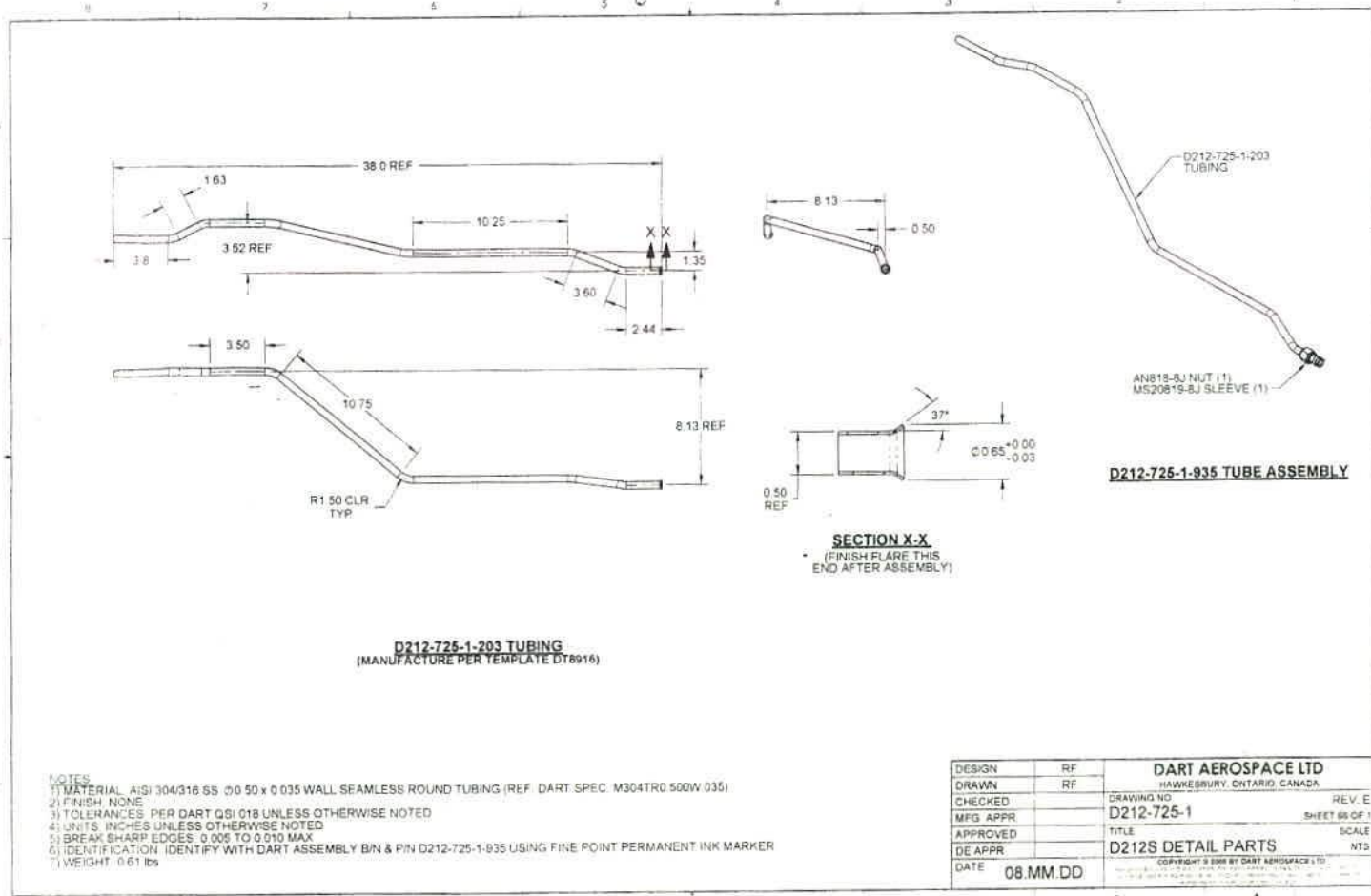
*08/11/17*

Job Completion



*u 08.11.17*

568



42032



M-100435

**CINTUBE** LTEE/LTD

CLIENT

☒ 333 BOUL. ST-JOSEPH, BUILDING # 105 ☐ 1250 MATHESON BLVD. EAST  
 LACHINE, QUEBEC MISSISSAUGA, ONTARIO  
 H8S 2K9 L4W 1R2  
 TEL: (514) 634-3592 TEL: (905) 625-190  
 FAX: (514) 636-3336 / 8625 FAX: (905) 625-1500

Rep: JASON ROBINSON

BON. LIVR.: RELACHE  
 M-100435  
 PACK. SLIP RELEASE

DATE: 16-Sep-08  
 COMMANDE #: 7167  
 ORDER #:

EXPED. A/TO :  
SAME

CLIENT NO.	MAT'L PAR / MAT'L BY	REFERENCE	MODE DE PAIEMENT / TERMS OF PAYMENT
MDAR72	CINTUBE & CLIENT		C.O.D. (VISA : VOIR CLAIRE)
TRANSPORT		DATE LIV. / DELIV. DATE	CONTACT
PUROLATOR COLLECT #7684382		1 A/TO 2 SEM./WKS	CHANTAL LAVOIE

CONTACT PHONE #: (613) 632-9577 EXT. #:  
 FAX #: (613) 632-1053

QUANT	EXP.	DIMENSION / SIZE	EP / WALL	DESCRIP. MAT'L / MAT'L DESCRIP.	DEG.	RAY. / RAD.	TANGENTE / TANGENT	INSTRUCTIONS
5	5	0.625 OD	0.035	PART NO. DART D212-725-1 S73 SMLS TUBE SS/304L	8 BENDS		SEE DRWG: D212-725-1 S73	FINAL CUT & FLARE ONE END
5	5	0.5 OD	0.035	PART NO. DART D212-725-1 S68 SMLS TUBE SS/304L	6 BENDS		SEE DRWG: D212-725-1 S68	FINAL CUT & FLARE ONE END
2	2			TWO COPIES OF MILL TEST REPORTS				
2	2			TWO COPIES OF LETTER OF COMPLIANCE				

Notes:

EX T WITH PRESENT / 10.17/08  
 (LAB)

CATEGORIE ISO  
ISO CATEGORY

1 2 3  
☐ ☒ ☐

CERTIFICAT D'ANALYSE  
MILL TEST CERTIFICATEOUI  
YES ☒LETTRE DE CONFORMITE  
LETTER OF COMPLIANCEOUI  
YES ☒

ASME

☐

DATE CLIENT AVIS. / ADV.:

CONTACT:

PAR/BY:

EXPEDIE PAR / SHIPPED BY:

DATE: 16.11.08

CLIENT:

DATE:

CLIENT: Page 1 of 1  
DART AEROSPACE LTD.  
1270 ABERDEEN ST.

HAWKSBURY  
ON K6A 1K7  
EXPED. A/TO :  
SAME

M-100435

# CINTUBE

LTEE/LTD

☒ 333 BOUL. ST-JOSEPH, BUILDING # 10 ☐ 1250 MATHESON BLVD. EAS  
LACHINE, QUEBEC MISSISSAUGA, ONTARIO  
H8S 2K9 L4W 1R2  
TEL: (514) 634-3592 TEL: (905) 625-1900  
FAX: (514) 636-3336 / 8625 FAX: (905) 625-1500

Rep: JASON ROBINSON

CINTUBE

BON. LIVR	RELACHE
PACK. SLIP	RELEASE

M-100435

DATE: 16-Sep-08  
COMMANDE #: 7167  
ORDER #:

CLIENT NO. MDAR72	MAT'L PAR / MAT'L BY CINTUBE & CLIENT	REFERENCE	MODE DE PAIEMENT / TERMS OF PAYMENT C.O.D. (VISA - VOIR CLAIRES)
----------------------	--	-----------	---

CONTACT PHONE #: (613) 632-9577 EXT. #:  
FAX #: (613) 632-1053

TRANSPORT  
PUROLATOR COLLECT #7684382

DATE LIV. / DELIV. DATE  
1 A/TO 2 SEM. WKS

CONTACT  
CHANTAL LAVOIE

QUANT	EXP.	DIMENSION / SIZE	EP / WALL	DESCRIP. MAT'L / MAT'L DESCRIP.	DEG.	RAY. / RAD.	TANGENTE / TANGENT	INSTRUCTIONS
5	1	0.625 OD	0.035	PART NO. DART D212-725-1 S73 SMLS TUBE SS/304L	8 BENDS		SEE DRWG: D212-725-1 S73	FINAL CUT & FLARE ONE END
5	1	0.5 OD	0.035	PART NO. DART D212-725-1 S68 SMLS TUBE SS/304L	6 BENDS		SEE DRWG: D212-725-1 S68	FINAL CUT & FLARE ONE END
2	2			TWO COPIES OF MILL TEST REPORTS				
2	2			TWO COPIES OF LETTER OF COMPLIANCE				

QIC

SENT WITH SHIPMENT *Oct. 17/08*

Notes:

CATEGORIE ISO  
ISO CATEGORY

1	2	3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ASME

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

CERTIFICAT D'ANALYSE  
MILL TEST CERTIFICATE

OUI  
YES ☒

LETTRE DE CONFORMITE  
LETTER OF COMPLIANCE

OUI  
YES ☒

EXPEDIE PAR / SHIPPED BY

DATE CLIENT AVIS / ADV

DATE *Oct 17/08*

CONTACT

CLIENT

PAR/BY

DATE



# CINTUBE

LTEE  
LTD.

CINTRAGE DE PRÉCISION DE TUBES, TUYAUX, CORNIÈRES, POUBES,  
PROFILÉS EN "U", LES SERPENTINS  
MANUFACTURIER DE GÉNÉRATRICE À VAPEUR, ÉLÉMENT CHAUFFANT,  
RÉCUPÉRATEUR DE CHAUFFEUR, ÉCONOMISEUR ETC  
PRECISION BENDING OF TUBES, PIPES, ANGLES, BEAMS, CHANNELS, COILS  
MANUFACTURERS OF STEAM GENERATORS, THERMAL FLUID HEATERS,  
WASTE HEAT RECOVERY UNITS, ECONOMIZERS

333 BOUL. ST-JOSEPH, LACHINE, QUÉBEC H8S 2K9  
TÉLÉPHONE: (514) 364-6426 FAX NO: (514) 636-3336

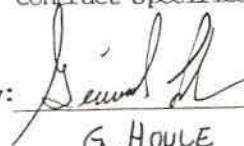
## LETTRE DE CONFORMITÉ - LETTER OF COMPLIANCE

Client/Customer DART AEROSPACE LTD Date: NOV.06/08  
N° de commande du client/Customer order No: 7167  
Notre n° de feuille de route/Our order No: 100435  
Notre n° de dessin/Our drawing No: -  
Description/Customer drawing No: D212-725-1 S68, D212-725-1 S73  
Nom de la pièce/Part Name: P/N D212-725-1-203, P/N D212-725-1-213  
4 pcs OF EACH

La présente est pour certifier que le matériel ci-haut mentionné se conforme aux exigences contractuelles de qualité et/ou de la confirmation de la commande, qu'il a été produit, inspecté et testé selon les spécifications standards applicables de notre programme de contrôle de la qualité, du contrat et du(des) dessin(s).

This is to certify that the material covered by this document conforms to the quality requirements of the purchase order or contract, that the material has been produced, verified and tested according to applicable standard specifications listed in our quality control procedures, contract specifications and/or drawing(s).

Signé par/Signed by:



G. HOULE pour B. WERBURY

Directeur des services techniques/Technical Services Director

Pour la Compagnie Cintube Ltée/On behalf of Cintube Ltd.

F 10.4.5

# ROCKWELL ALLOY CO., LTD

## MILL TEST CERTIFICATE

Certificate No. 2003-04-09

Messrs. NORCA INDUSTRIAL CO., LLC

100435

100435

DART AEROSPACE

7167

Nov.06/08

Date APR. 16, 2003

Order No.	530/001225				Invoice No.				RW0304-1				Date		At		11/10/2003	
Descrip.	STAINLESS STEEL SEAMLESS TUBING				Specification				ASTM A269-00 A213-99A/SA213				Type		TP304/TP304L			
Item No.	Size		Quantity				Manufacturing No.		Hydrostatic Test		O.D. POLISHED							
			Pcs	Weight kg														
1	3/8" x 0.049" x 20.0FT		280		434		0302-28		GOOD		180 Grit							
2	5/8" x 0.065" x 20.0FT		52		191		0302-07		GOOD		180 Grit							
3	1-1/2" x 0.065" x 20.0FT		54		511		0302-10		GOOD		180 Grit							
4	3/4" x 0.120" x 20.0FT		101		739		0302-35		GOOD		180 Grit							
5	5/8" x 0.035" x 20.0FT		104		201		0302-50		GOOD		180 Grit							
6	5/8" x 0.095" x 20.0FT		55		278		0303-94		GOOD		180 Grit							
Chemical Composition (%)																		
	C	Si	Mn	P	S	Ni	Cr	Mo	Heat No.	Yielding Strength	Tensile Strength	Elongation %	Hardness HRC	Flattening Test	Solution Heat Treatment			
Max.	0.035	0.75	2.00	0.040	0.030	13.00	20.00						90					
Min.						8.00	18.00			30000	75000	35			1040°C			
1	0.021	0.30	1.94	0.024	0.002	9.20	18.21		1w289	46400	92800	55	71	GOOD	1040°C			
2	0.021	0.30	1.94	0.024	0.002	9.20	18.21		1w289	44950	89900	56	70	GOOD	1040°C			
3	0.021	0.30	1.94	0.024	0.002	9.20	18.21		1w289	49300	97875	54	70	GOOD	1040°C			
4	0.021	0.30	1.94	0.024	0.002	9.20	18.21		1w289	42775	85550	59	72	GOOD	1040°C			
5	0.021	0.30	1.94	0.024	0.002	9.20	18.21		1w289	47850	95700	55	70	GOOD	1040°C			
6	0.021	0.30	1.94	0.024	0.002	9.20	18.21		1w289	44950	89900	54	72	GOOD	1040°C			
Remarks: CORROSION TEST: GOOD FLARING TEST: GOOD THIS MATERIAL TO SPECIFY THAT THE TUBING MEETS NACE MR0-175 REV.2002																		
<div>12 Director, Technology</div>																		







# CPI INDUSTRIES CO., LTD

## MILL TEST REPORTS

ISO9001:2000 ;PED CERTIFICATE ( Certificate No.: QAC0021058/A )

DATE OF ISSUE: 2006/4/28  
date: NOV. 06 / 08

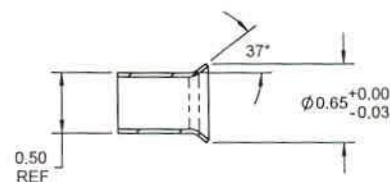
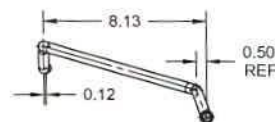
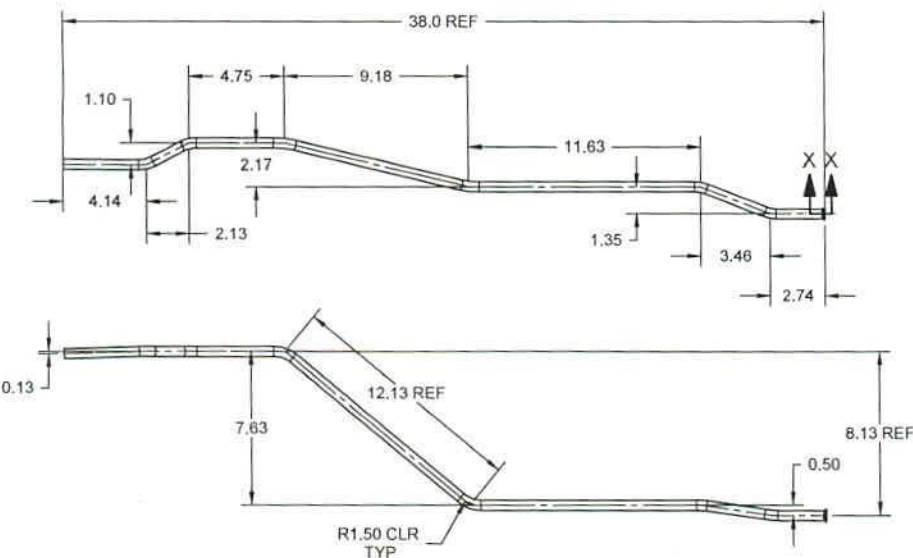
CINTUBE LTD.  
notes project n° 100435  
client DART AEROSPACE  
reference n° 7167

CUSTOMER: NORCA						CERTIFICATE NO.: 2006-3-82						
P.O. NO.: 32355						ORDER NO.: 2006-3-008						
COMMODITY: STAINLESS STEEL SEAMLESS TUBING.						GRADE: ASTM A213-04b TP304/TP304L						
CONDITION: COLD FINISH / SOLUTION TREATED / PICKLED / PLAIN END / OD POLISHED 240 GRIT.						HEAT NO.: 572-2517						
CHEMICAL CONTENTS (WT%)												
ELEMENTS		C	Mn	P	S	Si	Ni	Cr				
SPECIFICATION		≤ 0.035	≤ 2.00	≤ 0.045	≤ 0.030	≤ 1.00	8.0~12.0	18.0~20.0				
RESULTS (PRODUCT)		0.025	1.21	0.032	0.008	0.33	8.38	18.64				
PHYSICAL PROPERTIES												
Dimensions			Bundle No.	Pieces	Weight (kg)	0.2%YS (Mpa) ≥ 205	T S (Mpa) ≥ 515	EL (%) ≥ 35	FLARING TEST	FLATTENING TEST	HARDNESS HRB ≤ 80	EDDY CURRENT TEST (100%)
O.D (inch)	W.T (inch)	Length (feet)										
3/8	0.065	20	06-3-8-5	150	296	250	605	68.5	OK	OK	65	OK
1/2	0.035	20	06-3-8-6	1250	1993	300	675	62.0	OK	OK	72	OK
1/2	0.049	20	06-3-8-7	750	1624	270	625	62.5	OK	OK	67	OK
1/2	0.065	20	06-3-8-8	500	1385	245	610	67.0	OK	OK	64	OK
REMARKS:						1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT						
AS PER ASTM A213/ASME SA213-04b						2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.						
WALL THICKNESS TOLERANCE AS PER ASTM A269-04						CPI INDUSTRIES CO., LTD  D. Schweitzer MANAGER OF QUALITY ASSURANCE DEPARTMENT						
IN COMPLIANCE TO NACE MR0175-2002												
IC TEST TO ASTM A262 PRACTICE E												
SOLUTION HEAT TREATMENT : 1050°C X 1.5m/min.												
NO WELD REPAIR WAS PERFORMED												
FREE FROM MERCURY CONTAMINATION												
FREE OF RADIATION CONTAMINATION												
MEASUREMENT & SURFACE: OK												
CONFORMANCE TO NACE AND EN 10204-3.1B												
UNS S30400/30403												



8 7 6 5 4 3 2 1

D



**SECTION X-X**  
(FINISH FLARE THIS  
END AFTER ASSEMBLY)  
SCALE 5X

AN818-8J  
MS20819-8J SLÉEVE (1)

**D212-725-1-935 TUBE ASSEMBLY**

**D212-725-1-203 TUBING**  
(MANUFACTURE PER TEMPLATE DT8916)

*Wlo 42032*

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS  $\phi 0.50 \times 0.035$  WALL SEAMLESS ROUND TUBING (REF, DART SPEC, M304TR0.500W.035)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART ASSEMBLY B/N & P/N D212-725-1-935 USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: N/A

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DS	DRAWING NO.	REV. E
MFG. APPR.	N/A	D212-725-1	SHEET 68 OF 82
APPROVED		TITLE	SCALE
DE APPR.		D212S DETAIL PARTS	NTS
DATE	08.09.17	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

A

A